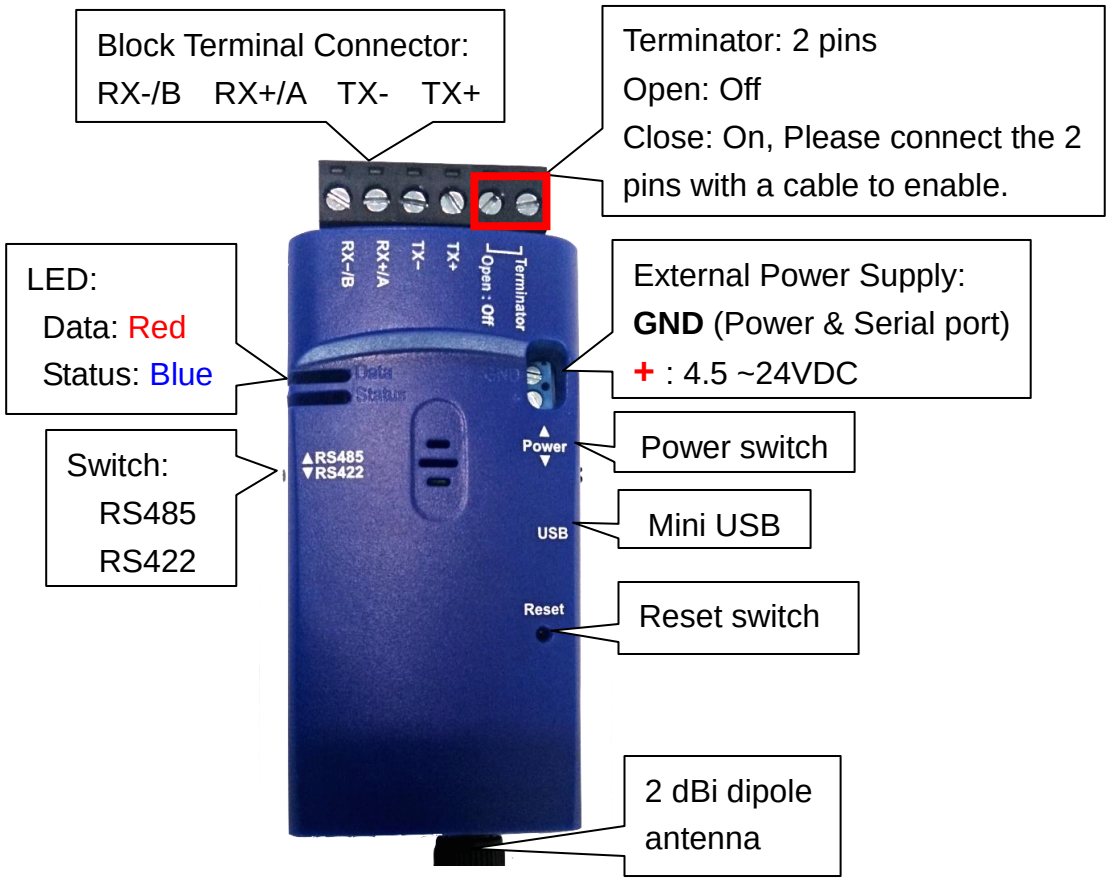
WiFi to RS-422/485 adapter user manual

WiFi to RS-232 adapter	Package Contents:
 White Box Dimension: 11 x 6 x 5 (cm) Total Package Weight: 132 g Label: “WA-422B” 	● WiFi RS-422/485 adapter x 1 ● 2 dBi dipole antenna x 1 ● A4 User manual x 1 ● USB Cable x 1

1. Product profile:



2. Start to use the adapter

2.1 Please fasten the external antenna to the adapter and switch RS-422 or RS-485 in right side.

2.2 There’re two power inputs, mini USB or blue 2 ports block terminal. Please switch to choose one way to power the adapter. The max voltage is 24 VDC input from the blue block terminal.

2.3 COM port default setting:

- Baud rate: 115200 bps
- Data bit: 8

- Parity: none
- Stop bit: 1
- Flow control: none

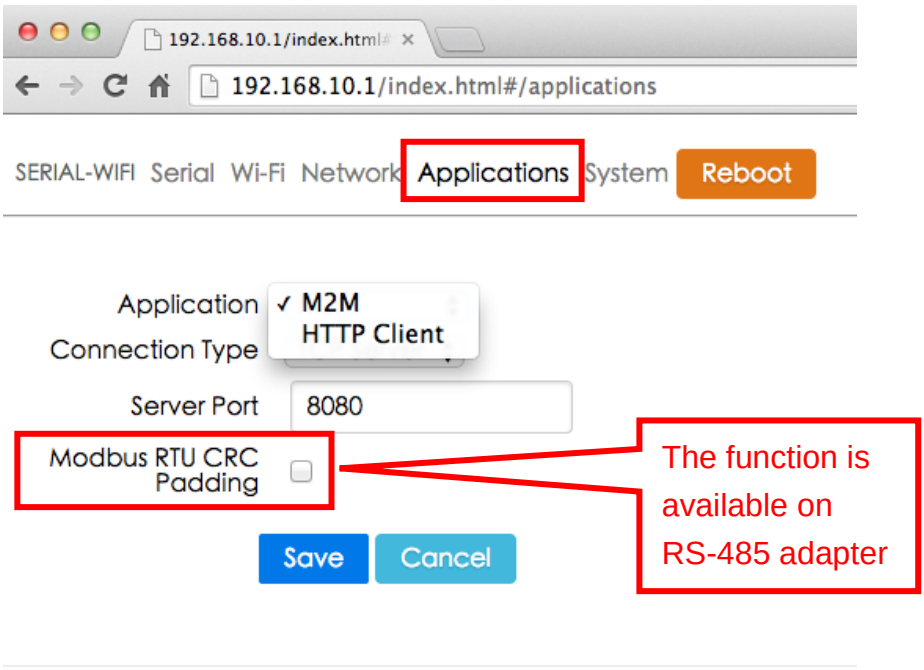
2.4 Network default setting:

- Simple AP with DHCP Server
- SSID: Serial2WiFi_ab_cd (“ab” and “cd” is the last 4 code of Mac address)
- Security(WPA2): 12345678
- IP: 192.168.10.1
- Socket port: 8080
- Channel: 6
- Log in ID: admin
- Log in password: admin

2.5 Power switch: mini USB side by default. The user will switch to the blue 2 ports block terminal side if the power input comes from other sources.

3. Modbus: The adapter support RS-485 Modbus TCP RTU

Please check the box below:



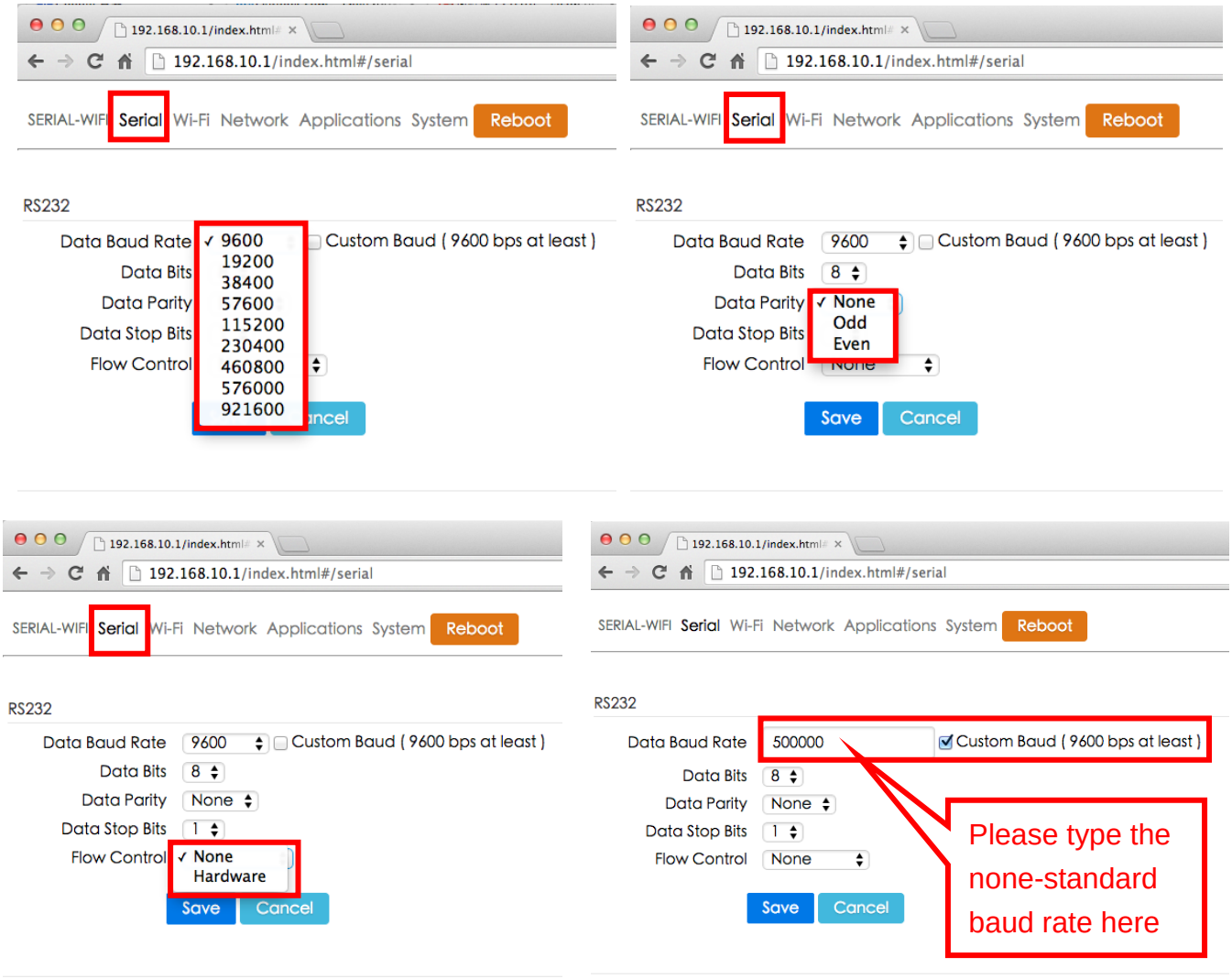
4. Configuration:

4.1 Log in:

- Connect with the WiFi RS-232 adapter by PC,NB or Mobile terminal
- SSID: Serial2WiFi_ab_cd (abcd: Last 4 code of the Mac address)
- Security code: 12345678
- Execute browser, type IP address: 192.168.10.1
- ID: admin
- Password: admin

4.2 Serial setting:

- Baud Rate: 9600~921600 bps
- Data Bits: 8 only
- Parity: None, Odd, Even
- Stop Bits: 1 only

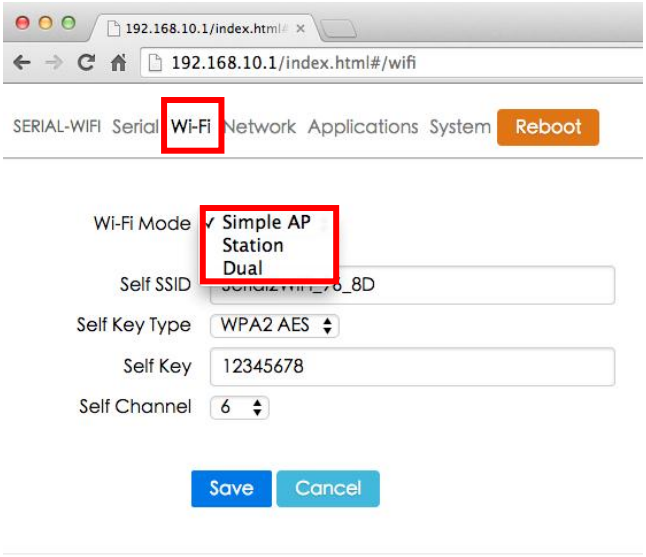


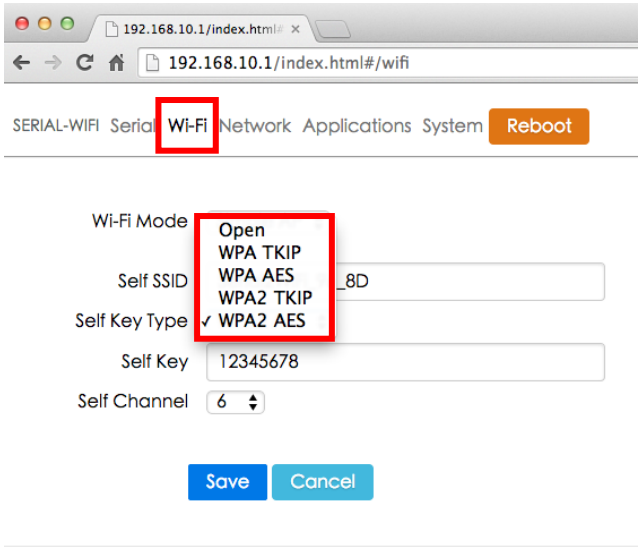
4.3 WiFi setting:

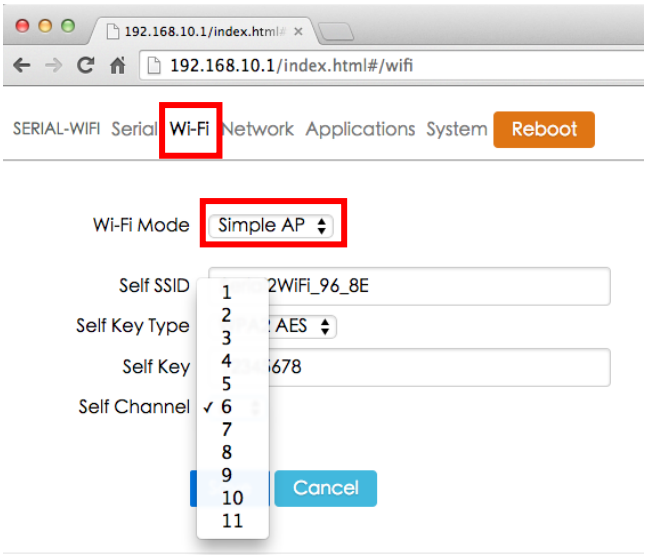
Mode: Simple AP, Station, Dual (AP & Station)

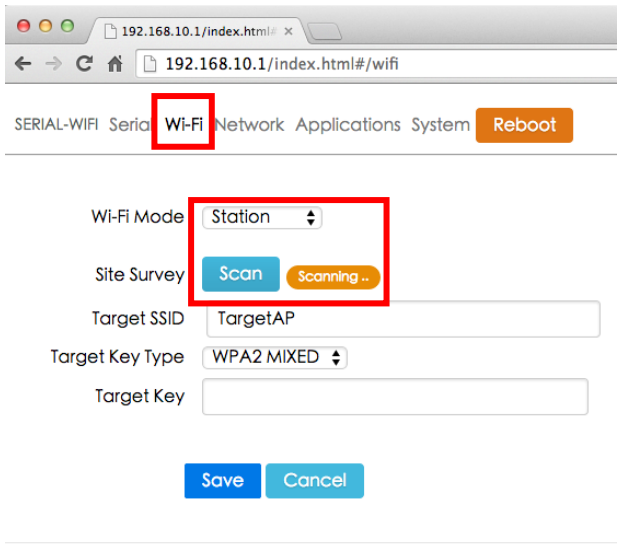
Encryption: Open, WPA TKIP, WPA AES, WPA2 TKIP, WPS2 AES

Channel: auto,1~11, 6 (default)

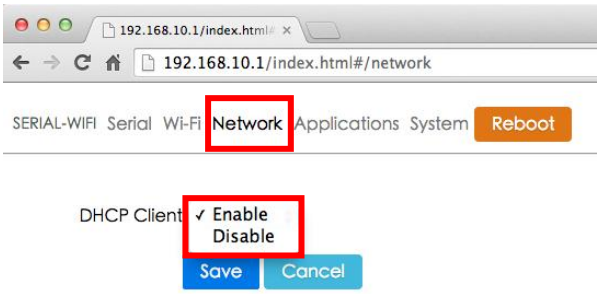


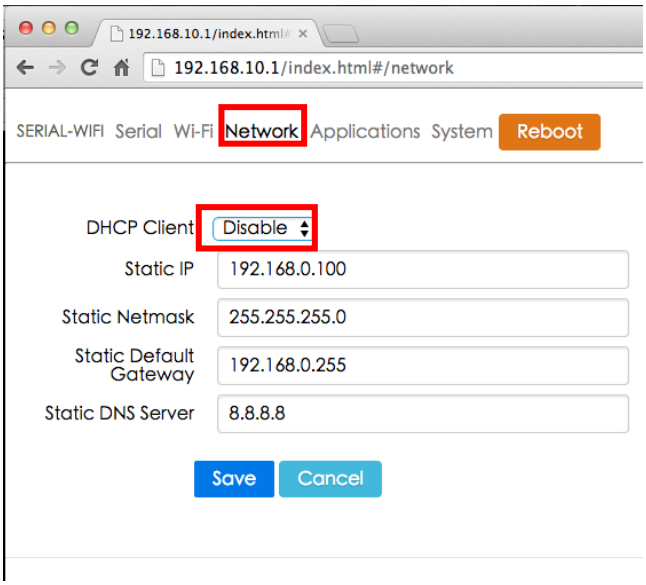






4.4 Network setting:

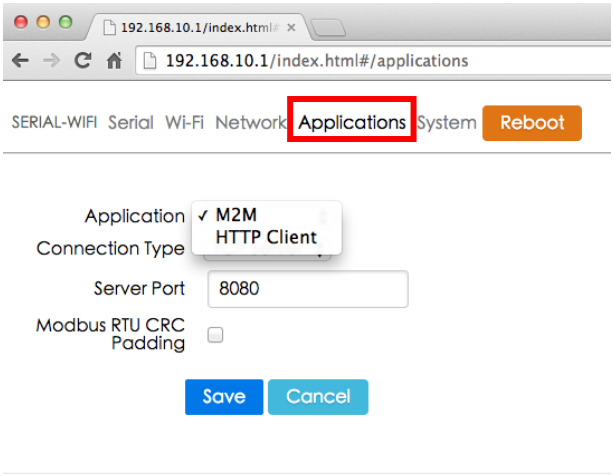


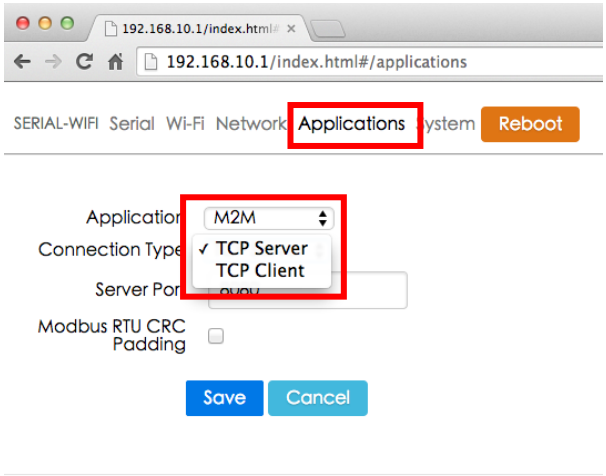


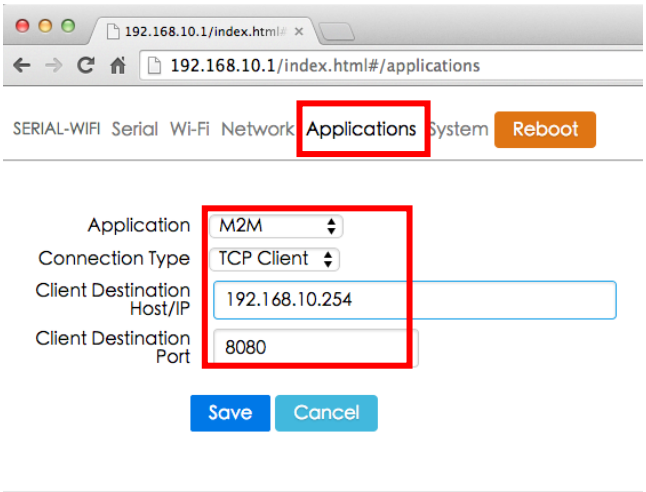
4.5 Applications:

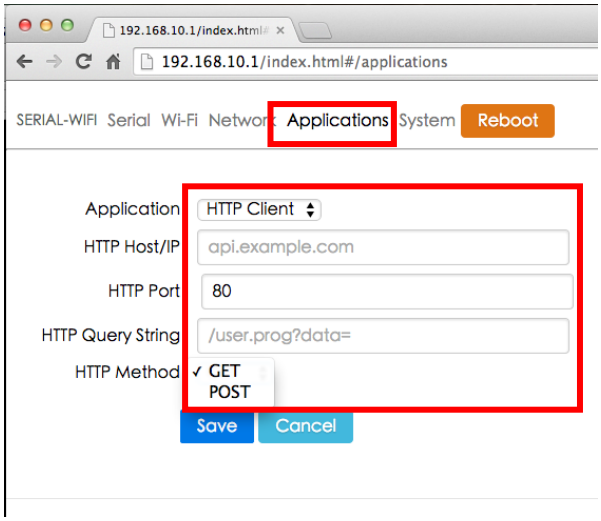
4.5.1 M2M: TCP Server and TCP Client

4.5.2 HTTP Client: GET and POST

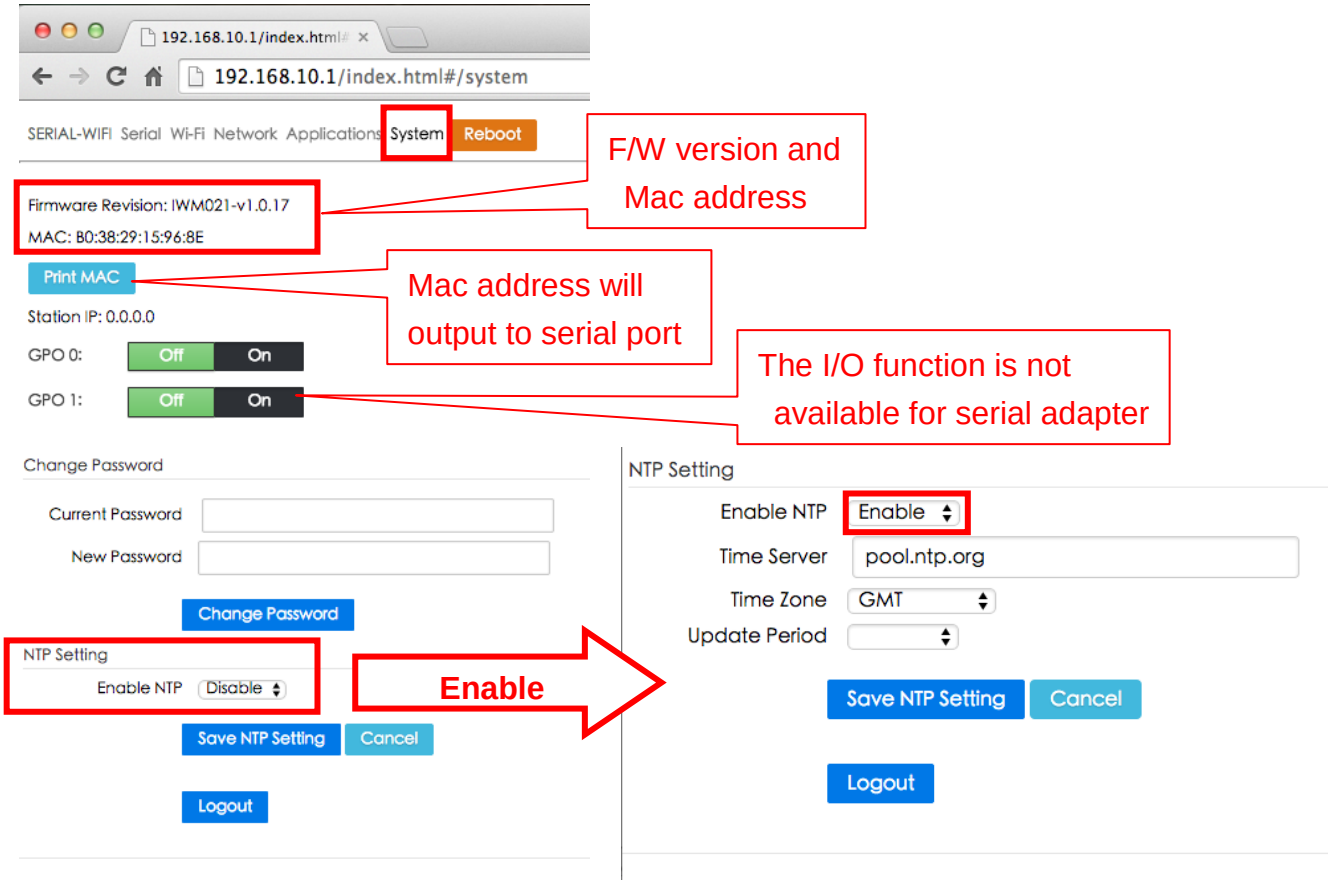

192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application M2M
HTTP Client
Connection Type
Server Port 8080
Modbus RTU CRC Padding
Save Cancel

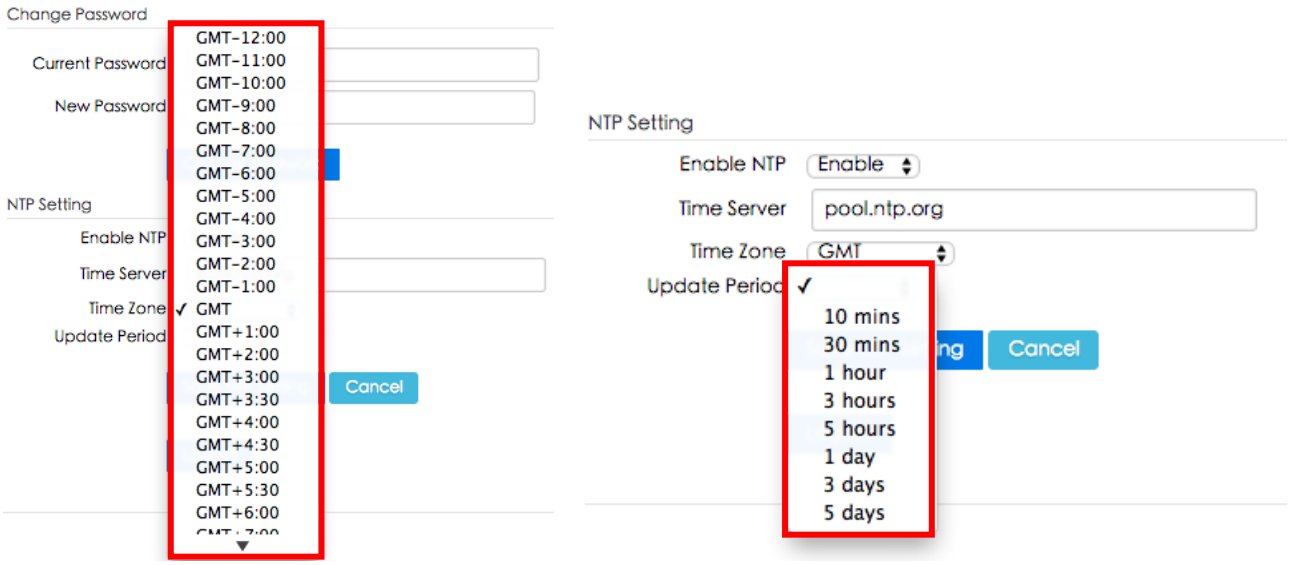

192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application M2M
Connection Type
TCP Server
TCP Client
Server Port
Modbus RTU CRC Padding
Save Cancel


192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application M2M
Connection Type TCP Client
Client Destination Host/IP 192.168.10.254
Client Destination Port 8080
Save Cancel


192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application HTTP Client
HTTP Host/IP api.example.com
HTTP Port 80
HTTP Query String /user.prog?data=
HTTP Method GET POST
Save Cancel

4.6 System:


192.168.10.1/index.html#/system
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Firmware Revision: IWM021-v1.0.17
MAC: B0:38:29:15:96:8E
F/W version and Mac address
Print MAC
Station IP: 0.0.0.0
Mac address will output to serial port
GPO 0: Off On
GPO 1: Off On
The I/O function is not available for serial adapter
Change Password
Current Password
New Password
Change Password
NTP Setting
Enable NTP Disable
Save NTP Setting Cancel
Logout
Enable
NTP Setting
Enable NTP Enable
Time Server pool.ntp.org
Time Zone GMT
Update Period
Save NTP Setting Cancel
Logout



Remark: The NTP data will be bundled with the sensor data for the application of IOT, Internet of Things. If you need the function, the F/W will be modified.

5. LED indication:

LED	Status
Red	Indicates system ready
Blue	Solid On: WiFi connected Flash: data is transmitted through WiFi

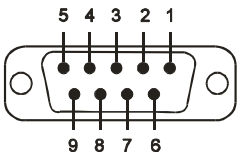
6. WPS/Reset button: Please put the paperclip or small pin into the hole for pressing the button.

6.1 WPS: Press the button in short time which is not longer than 3 seconds.

6.2 Reset to default setting: Press the button over 5 seconds, the WiFi adapter will reset to default value. The LEDs will be off for some time and then reboot to the default value.

7. RS232 Interface: DB9 Female with Nut

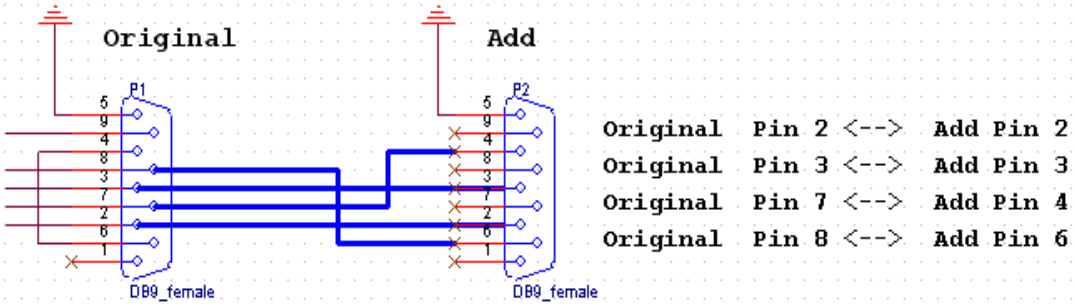
7.1 Pin-out:



7.2 Signals:

Pin	Signal	DTE Direction	DCE Direction	Description
1	CD	Input	Output	Not connected
2	TxD	Output	Input	Transmitted data
3	RxD	Input	Output	Received data
4	DSR	Input	Output	Contact manufacturer to set this
5	GND	N/A	N/A	Signal ground
6	DTR	Output	Input	Contact manufacturer to set this
7	CTS	Input	Output	Clear to send
8	RTS	Output	Input	Request to send (Default)
9	Vcc	Input	Input	External Power supply (Remark 1)

7.3 DSR/DTR Connection:

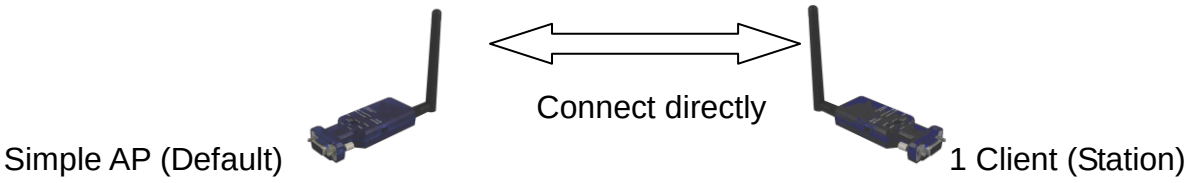


8. Command set: Not Available

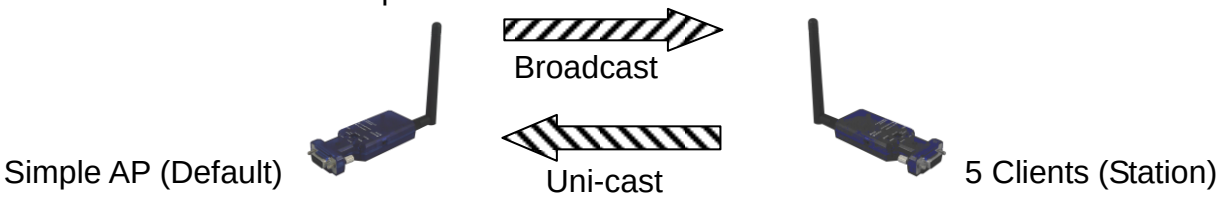
ITEM	FUNCATION	COMMAND
1	Inquire the setting of the adapter	
2	Set the COM port parameters	

9. Network:

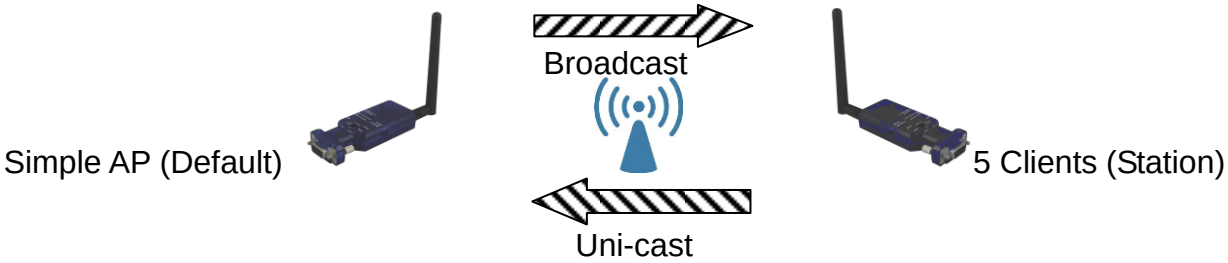
9.1 One to one connection: The two WiFi adapters will be connected directly without access point.



9.2 One to 5 connection via Simple AP

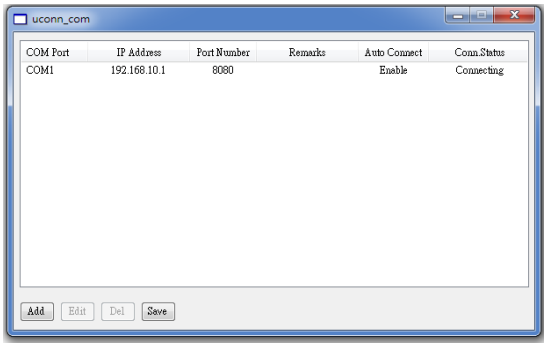


9.3 One to 5 connection via other Access Point:

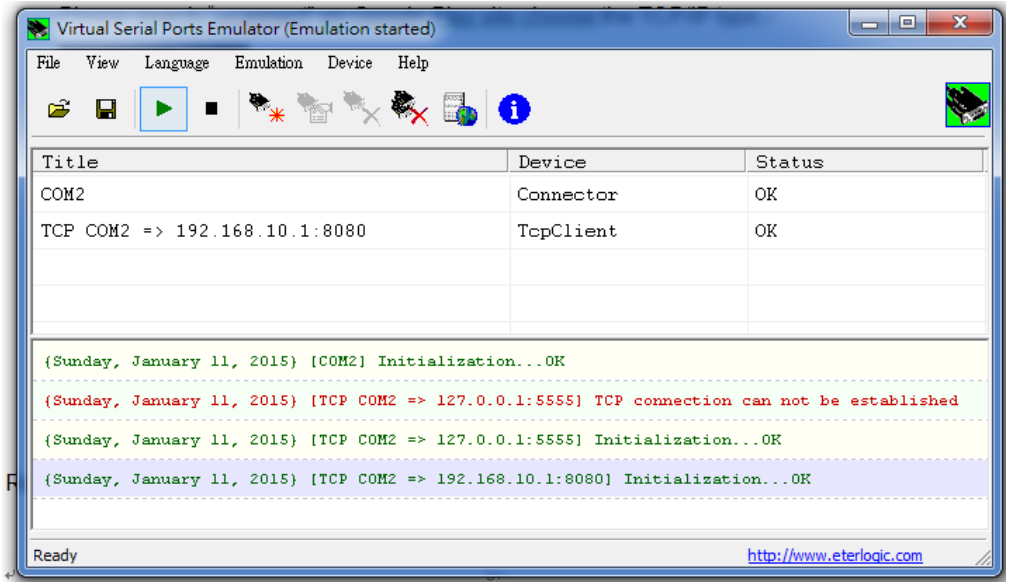


10. Virtual COM port

10.1 Factory Mac bundled Virtual Serial Port (VSP) Driver (Will be available soon)

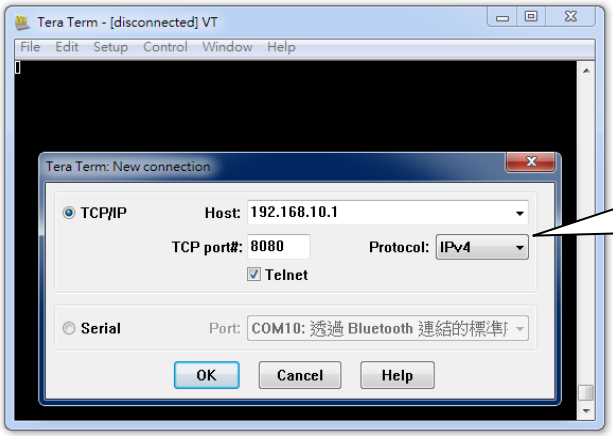


10.2 Reference Driver: www.eterlogic.com


Virtual Serial Ports Emulator (Emulation started)
File View Language Emulation Device Help
Title Device Status
COM2 Connector OK
TCP COM2 => 192.168.10.1:8080 TcpClient OK
{Sunday, January 11, 2015} [COM2] Initialization...OK
{Sunday, January 11, 2015} [TCP COM2 => 127.0.0.1:5555] TCP connection can not be established
{Sunday, January 11, 2015} [TCP COM2 => 127.0.0.1:5555] Initialization...OK
{Sunday, January 11, 2015} [TCP COM2 => 192.168.10.1:8080] Initialization...OK
Ready
http://www.eterlogic.com

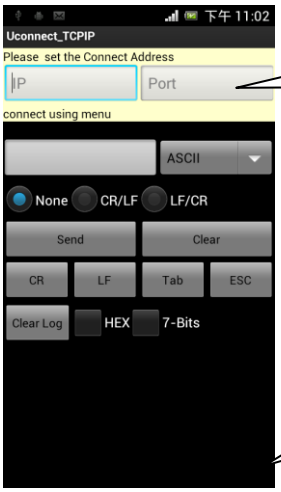
11. Test software:

11.1 Teraterm: ASCII code terminal emulator for TCP/IP socket and COM Port. Please search “teraterm” on Google searching and install the main program.



IP: 192.168.10.1 (Default)
TCP Port: 8080 (Default)
Protocol: IPV4, Telnet

11.2 Android APP: Android terminal emulator of TCP/IP socket. Support ASCII or Binary format. Please search “uconnect” on Google Play site choose the TCP/IP type.



IP: 192.168.10.1 (Default)
TCP Port: 8080 (Default)

Click the menu on the corner
Select “Connect”

Remark: All contents are subject to change without notice.